



# GREEN LINE EXTENSION PROJECT



**massDOT**  
Massachusetts Department of Transportation



GLX Community Working Group  
Monthly Meeting #45  
August 3, 2021

# Agenda - Meeting #45

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## **Welcome & Safety Moment**

## **GLX Drainage System**

## **US2 Interim Conditions**

## **Public Outreach Moving Forward**

- Terry McCarthy, MBTA – GLX Deputy Program Director, Stakeholder Engagement

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## **Construction Update**

- Jeff Wagner, GLXC Public Involvement Manager

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## **Q & A**

- All



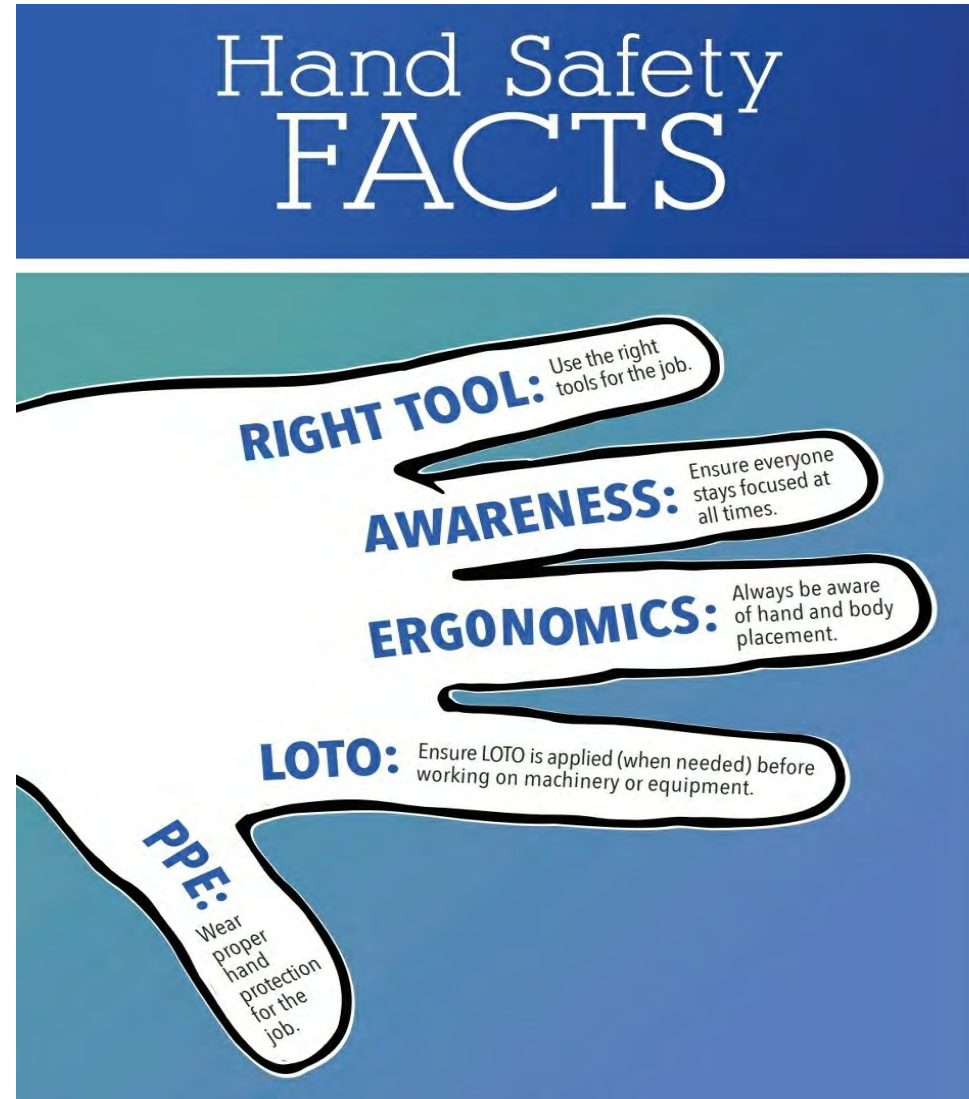


# Welcome & Safety Moment

- Terry McCarthy, GLX Deputy Program Manager, Stakeholder Engagement



# 1. Safety Moment



- ✓ Finger-friendly ceramic blade
- ✓ Fewer accidents



- ✓ **Micro-ceramic blade**  
Roll over image to zoom in

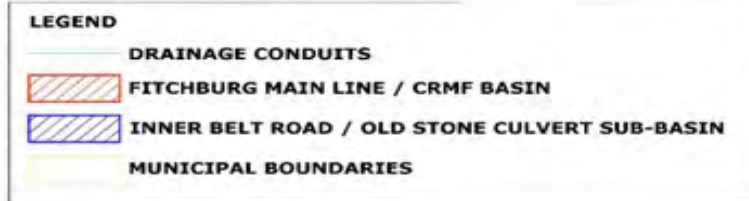


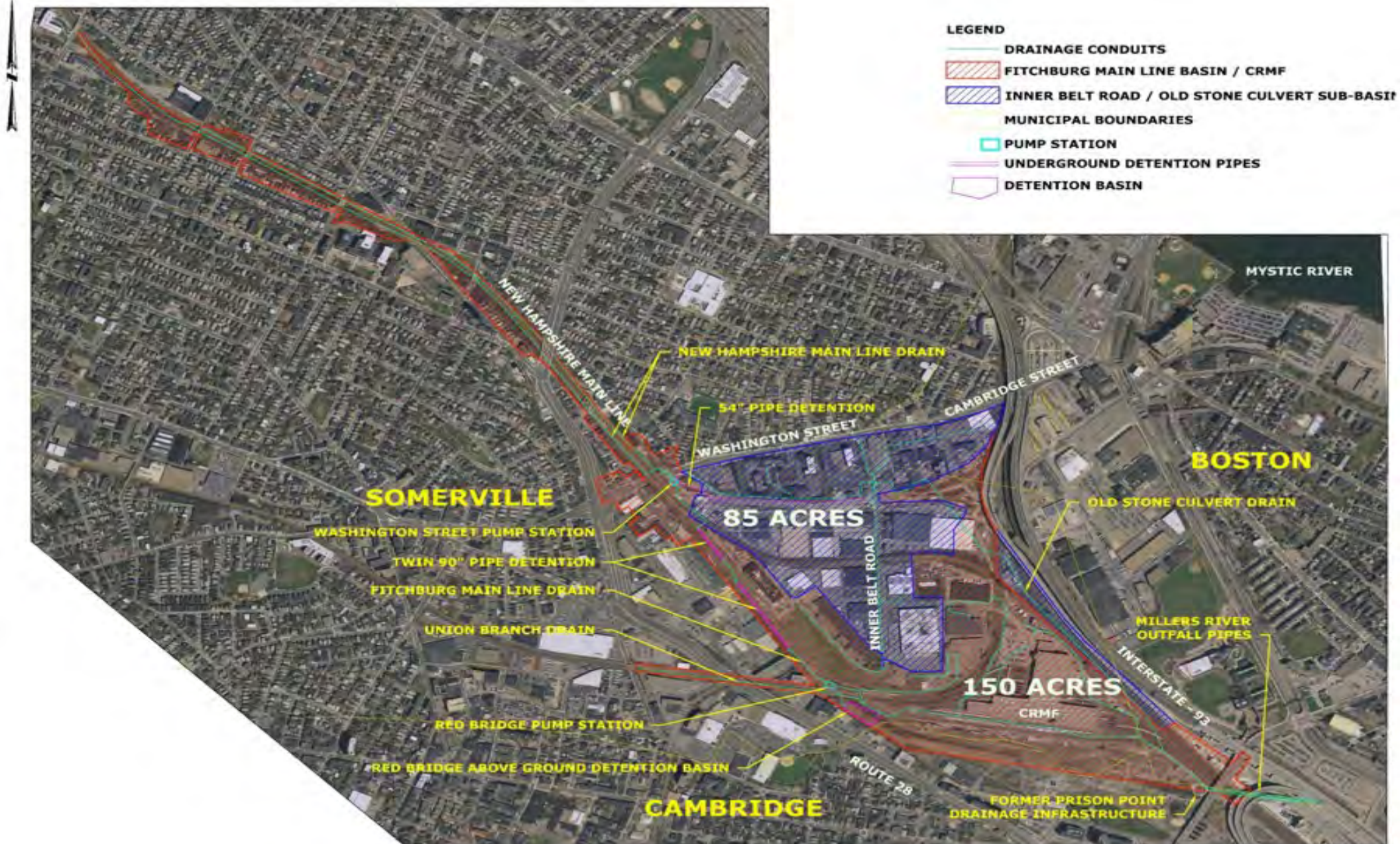


# GLX Drainage Systems & Improvements

- Terry McCarthy, GLX Deputy Program Manager, Stakeholder Engagement









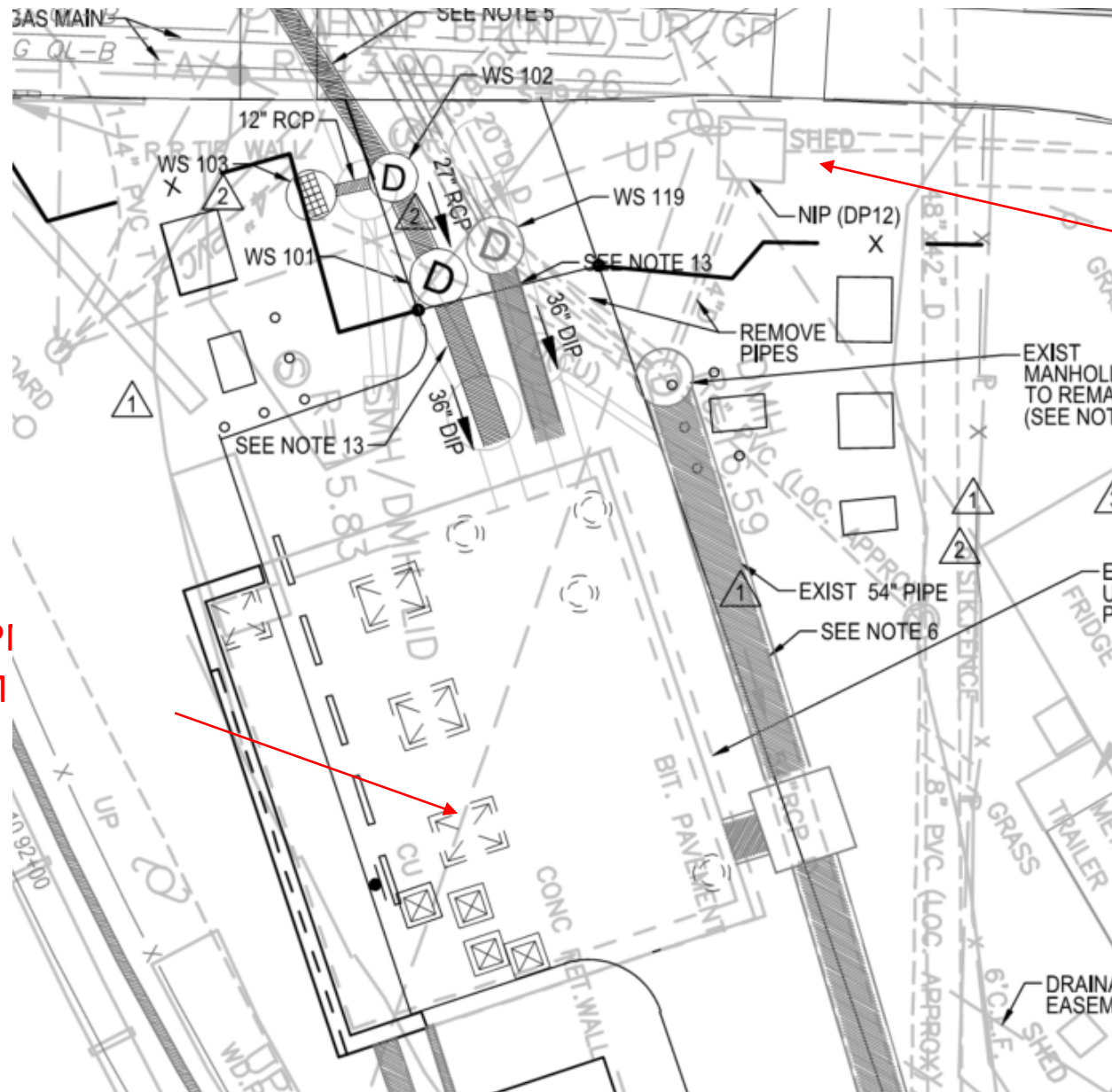
# Summary of Existing Millers River Discharges

- Somerville Municipal Street, Building and Landscape Runoff
- Somerville Commercial Property Runoff
- MBTA and Other Railroad's Track and Maintenance Facility Runoff
- UniFirst Corporation Groundwater Infiltration









Old PS:

2-2 HP Pumps,  
Approximately  
300 GPM

New PS:

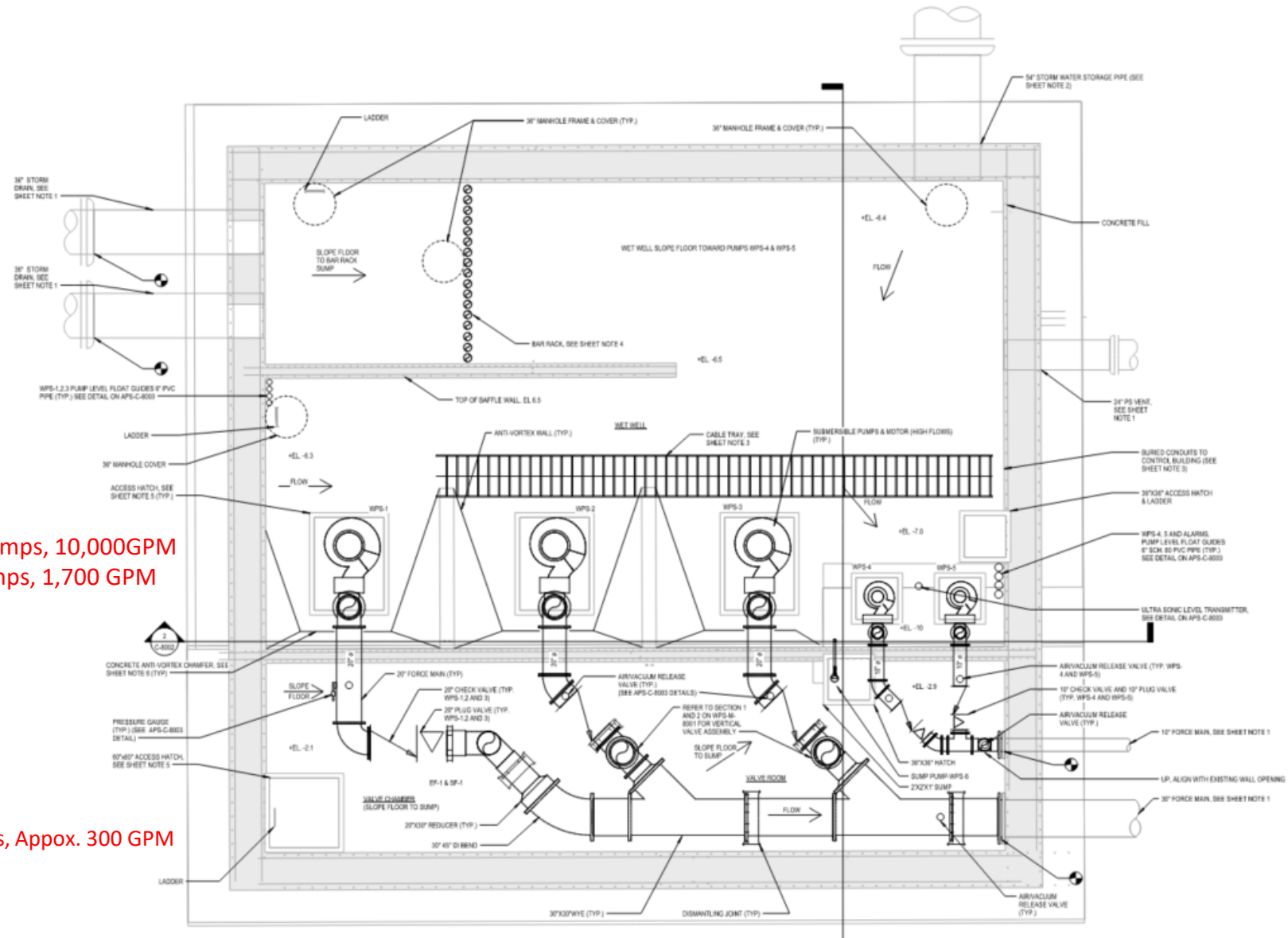
3-100 HP Pumps, 10,000GPI  
2-20 HP Pumps, 1,700 GPM



# Washington Street Pump Station: Plan Layout

New PS:  
 3-100 HP Pumps, 10,000GPM  
 2-20 HP Pumps, 1,700 GPM

Old PS:  
 2-2 HP Pumps, Approx. 300 GPM



# GLX Drainage System Map



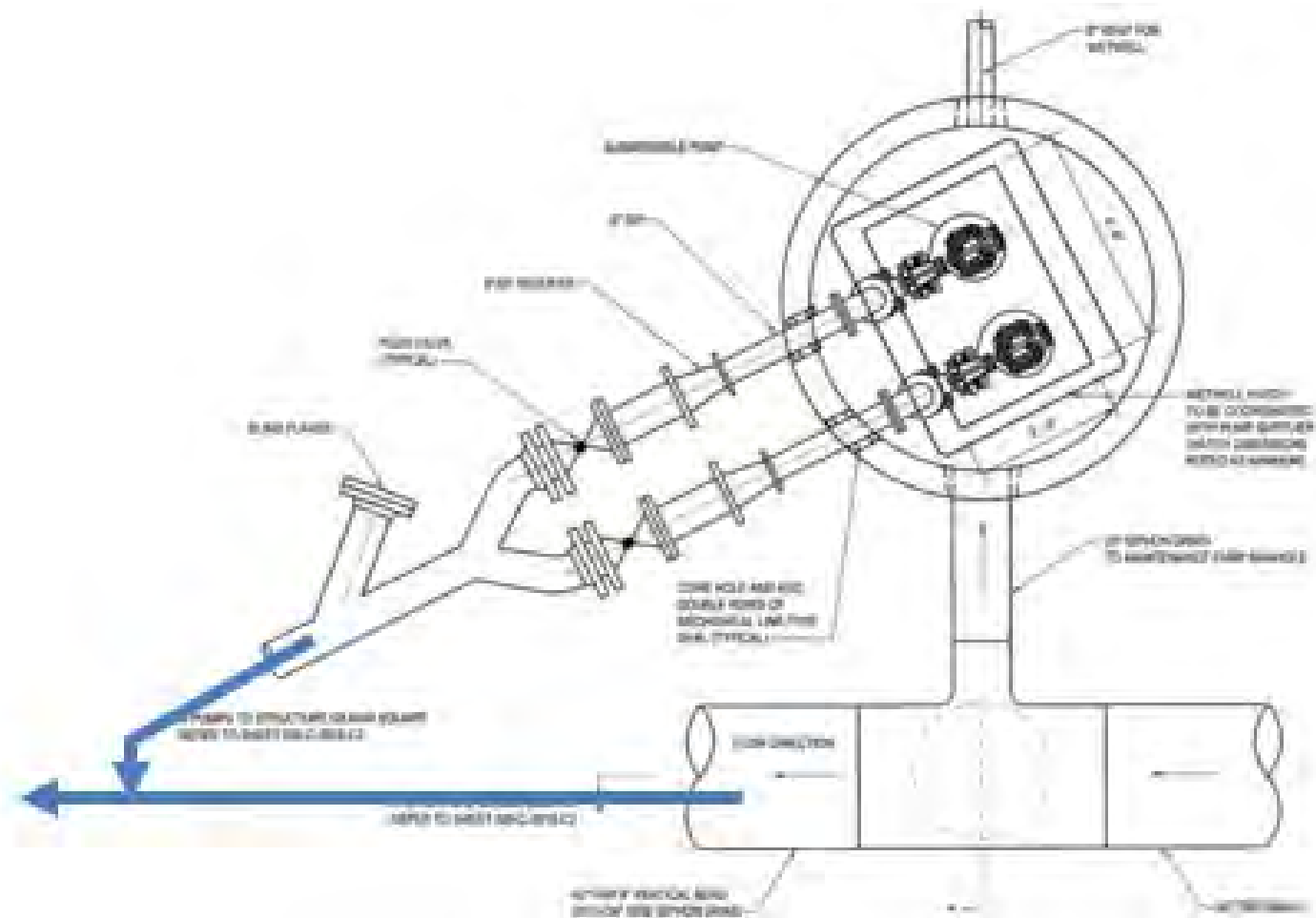
# GLX Drainage System Map: Union Square Branch & Medford Branch South of Washington St



# Pump Stations

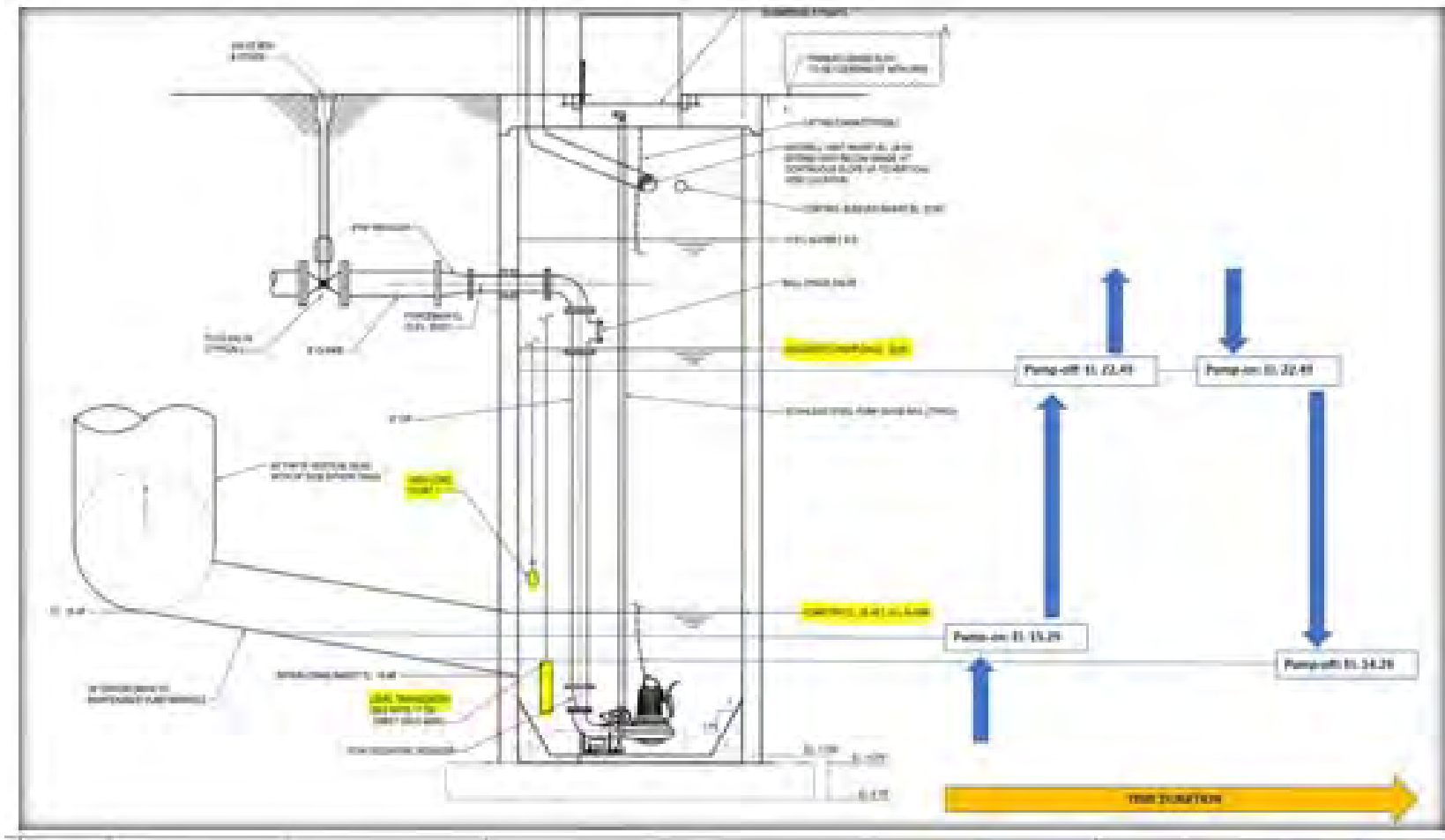


# Gilman Maintenance Pump: Plan



TAG NO.	NUMBER OF UNITS	NAME	LOCATION	TYPE	RATING POINT				MIN. SUCTION/ DISCHARGE SIZE (IN.)	PUMP RPM MAX.	SEAL TYPE	MOTOR DATA		
					CAPACITY (GPM)	HEAD (FEET)	MIN. EFF. %	SHUTOFF HEAD FT.				HP	RPM (MAX.)	ENCL. TYPE
GPS-1 GPS-2	2	STORMWATER PUMPS	GILMAN SQUARE MAINTENANCE PUMP MANHOLE	SOLIDS HANDLING SUBMERSIBLE	750	28	60	57	4/4	1750	DOUBLE	10	1747	X-PROOF SUBMERSIBLE

# Gilman Maintenance Pump: Section



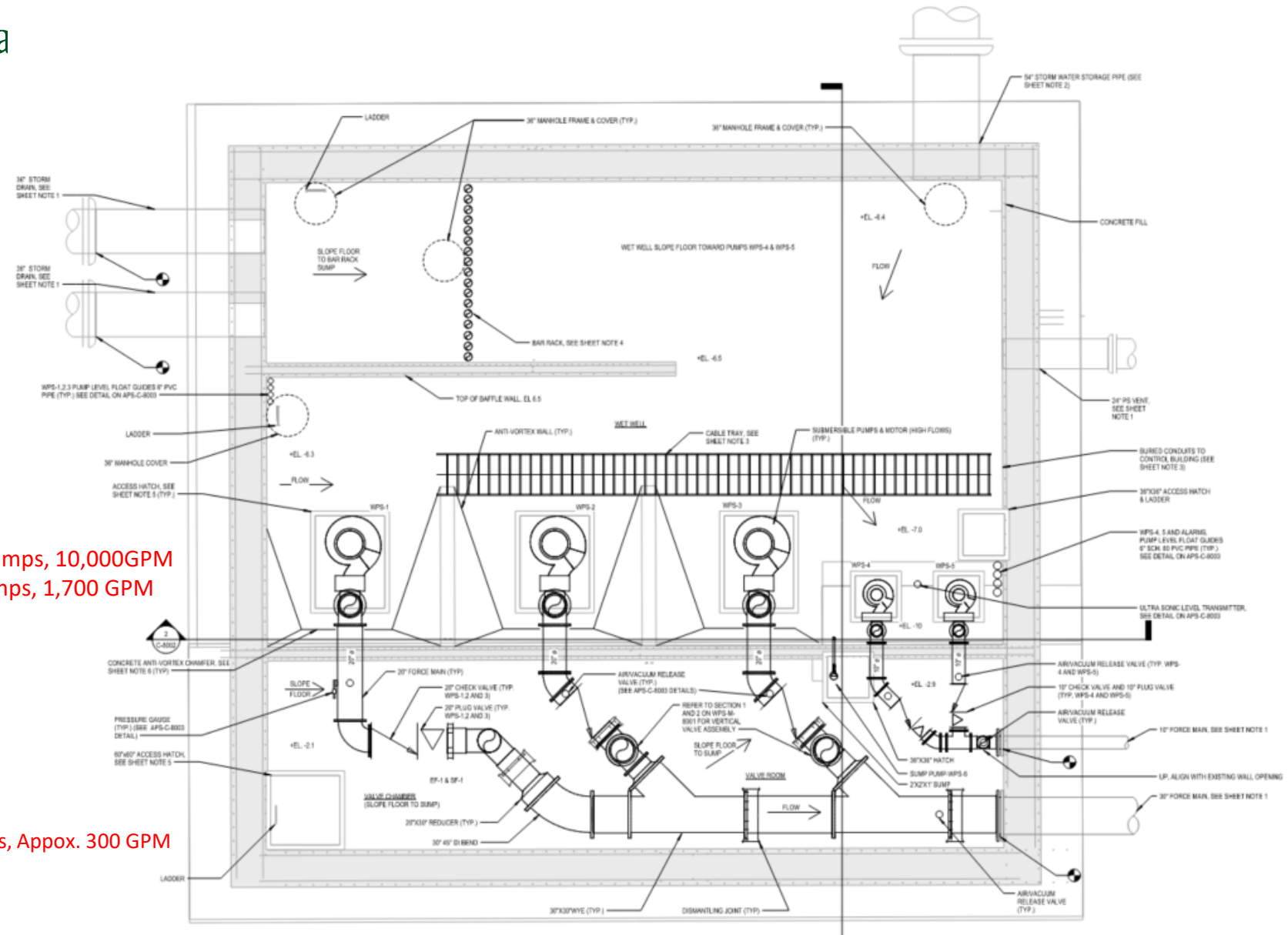
TAG NO.	NUMBER OF UNITS	NAME	LOCATION	TYPE	RATING POINT				MIN. SUCTION/ DISCHARGE SIZE (IN.)	PUMP RPM MAX.	SEAL TYPE	MOTOR DATA		
					CAPACITY (GPM)	HEAD (FEET)	MIN. EFF. %	SHUTOFF HEAD FT.				HP	RPM (MAX.)	ENCL. TYPE
GPS-1 GPS-2	2	STORMWATER PUMPS	GILMAN SQUARE MAINTENANCE PUMP MANHOLE	SOLIDS HANDLING SUBMERSIBLE	750	28	60	57	4/4	1750	DOUBLE	10	1747	X-PROOF SUBMERSIBLE



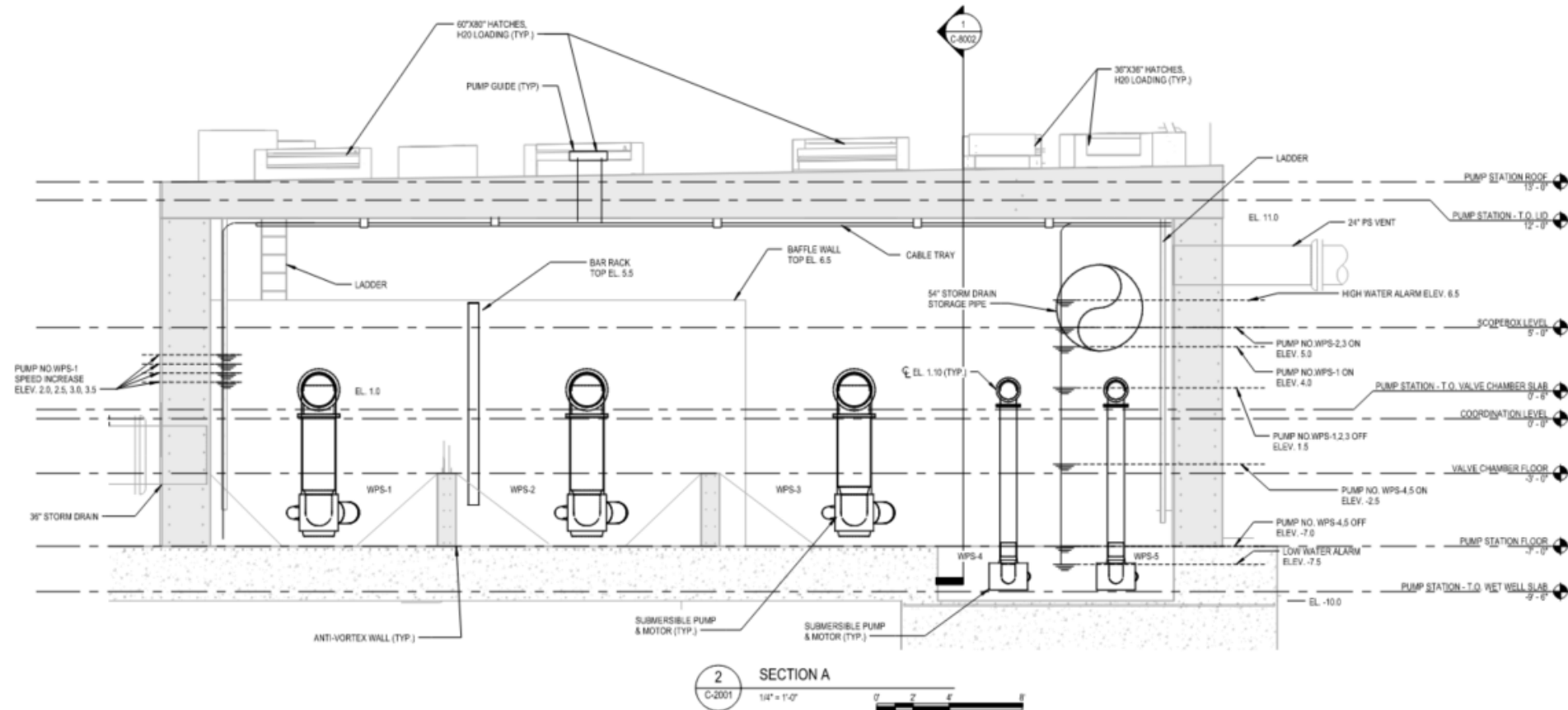
# Washington Street Pump Station: Plan La

New PS:  
3-100 HP Pumps, 10,000GPM  
2-20 HP Pumps, 1,700 GPM

Old PS:  
2-2 HP Pumps, Appox. 300 GPM



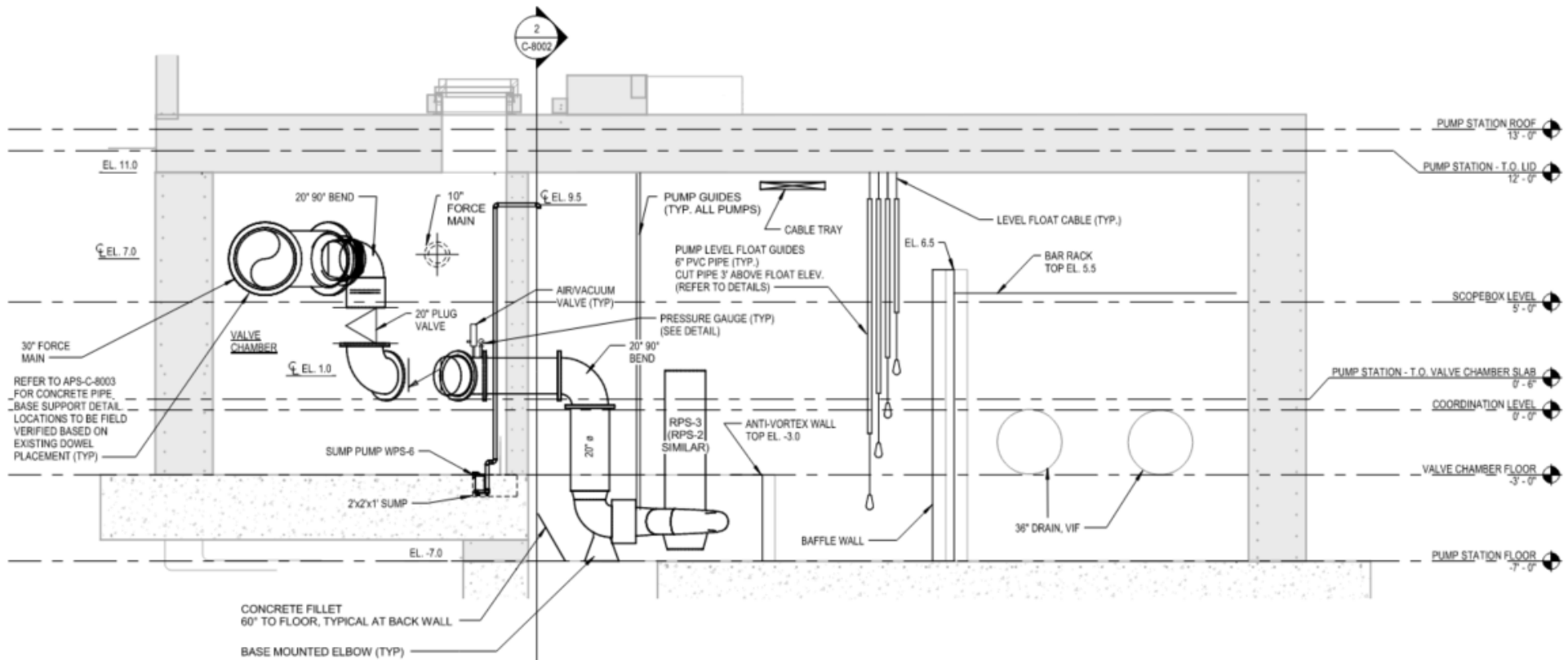
# Washington Street Pump Station: Section



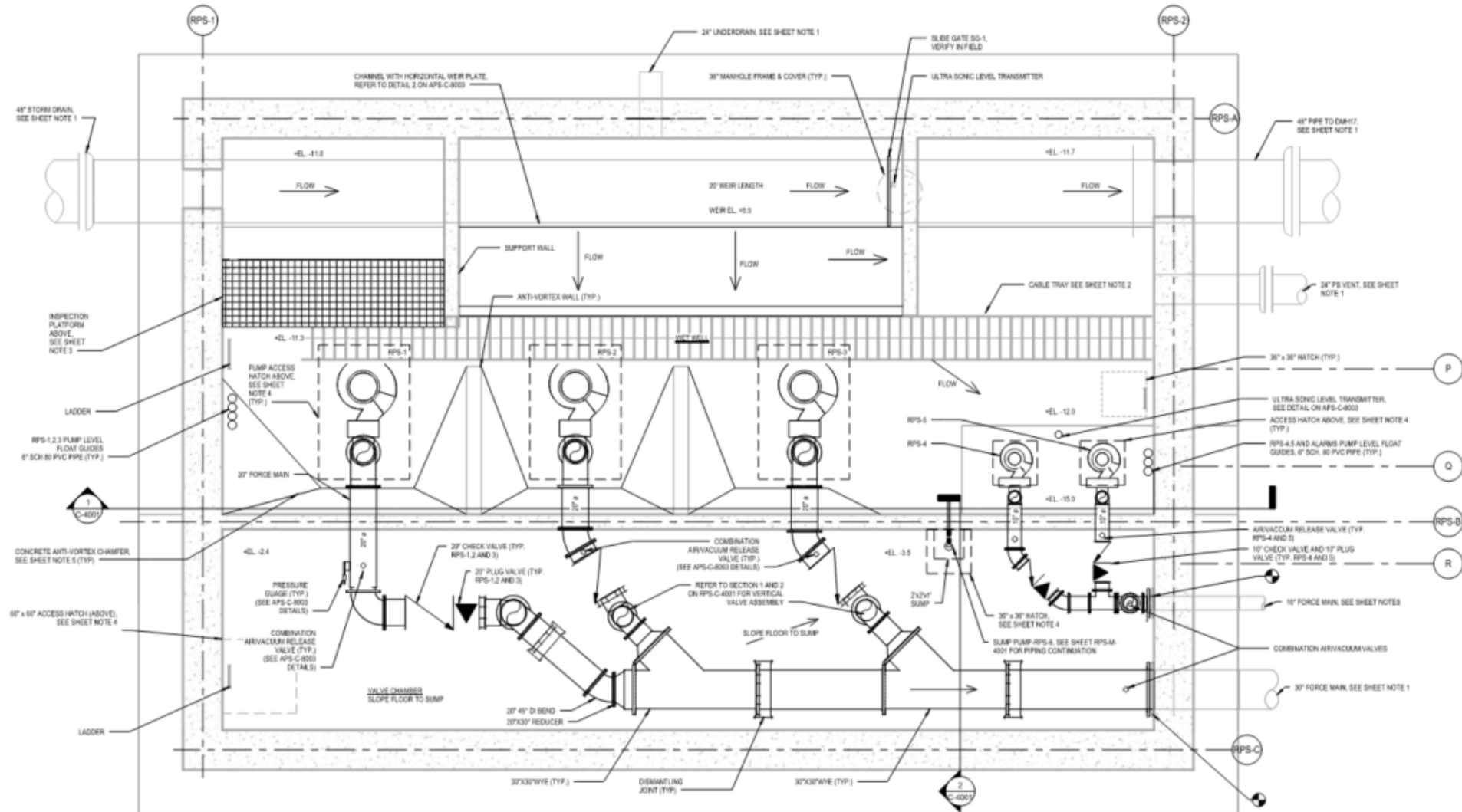
TAG NO.	NUMBER OF UNITS	NAME	LOCATION	TYPE	RATING POINT				MIN. SECTION/ DISCHARGE SIZE (IN.)	PUMP RPM MAX.	SEAL TYPE	MOTOR DATA		
					CAPACITY (GPM)	HEAD (FEET)	MIN. EFF. %	SHUTOFF HEAD (FT.)				HP	RPM (MAX.)	ENCL. TYPE
WPS-1 THRU 3	3	HIGH FLOW PUMPS	WASHINGTON STREET PUMP STATION	SOLIDS HANDLING SUBMERSIBLE	10,000	30	73	58	16/16	875	TANDEM MECH.	100	720	1/2" PROOF SUBMERSIBLE
WPS-4 & 5	2	LOW FLOW PUMPS	WASHINGTON STREET PUMP STATION	SOLIDS HANDLING SUBMERSIBLE	1,700	35	69	48	8/8	1170	TANDEM MECH.	20	1200	1/2" PROOF SUBMERSIBLE
WPS-6	1	SUMP PUMP	WASHINGTON STREET PUMP STATION	SOLIDS HANDLING SUBMERSIBLE	25	25	-	-	1.5/2	-	MECH.	1/2	3450	1/2" PROOF SUBMERSIBLE



# Washington Street Pump Station: Section (2)



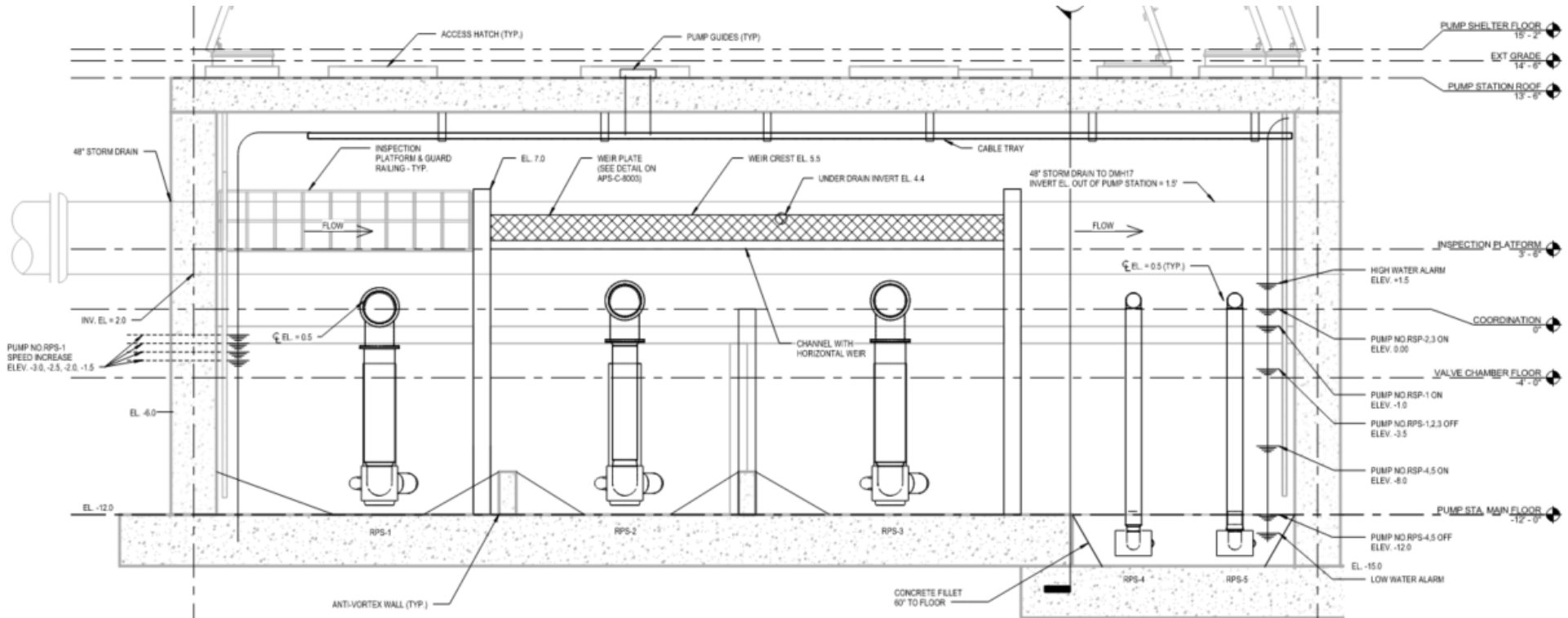
# Red Bridge Pump Station: Plan Layout



1 PUMP STATION PLAN PUMP LAYOUT  
6" = 1'-0"



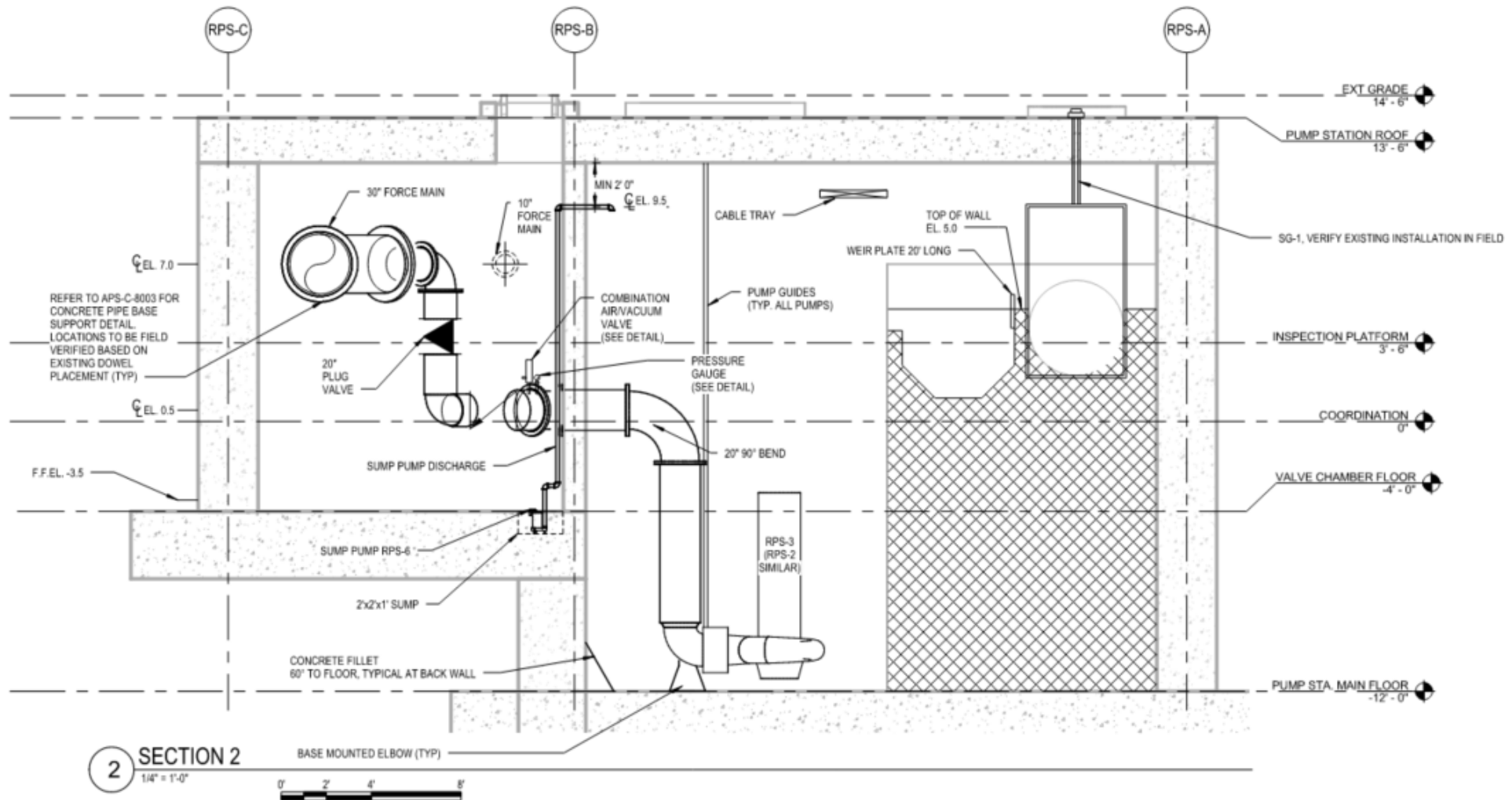
# Red Bridge Pump Station: Section



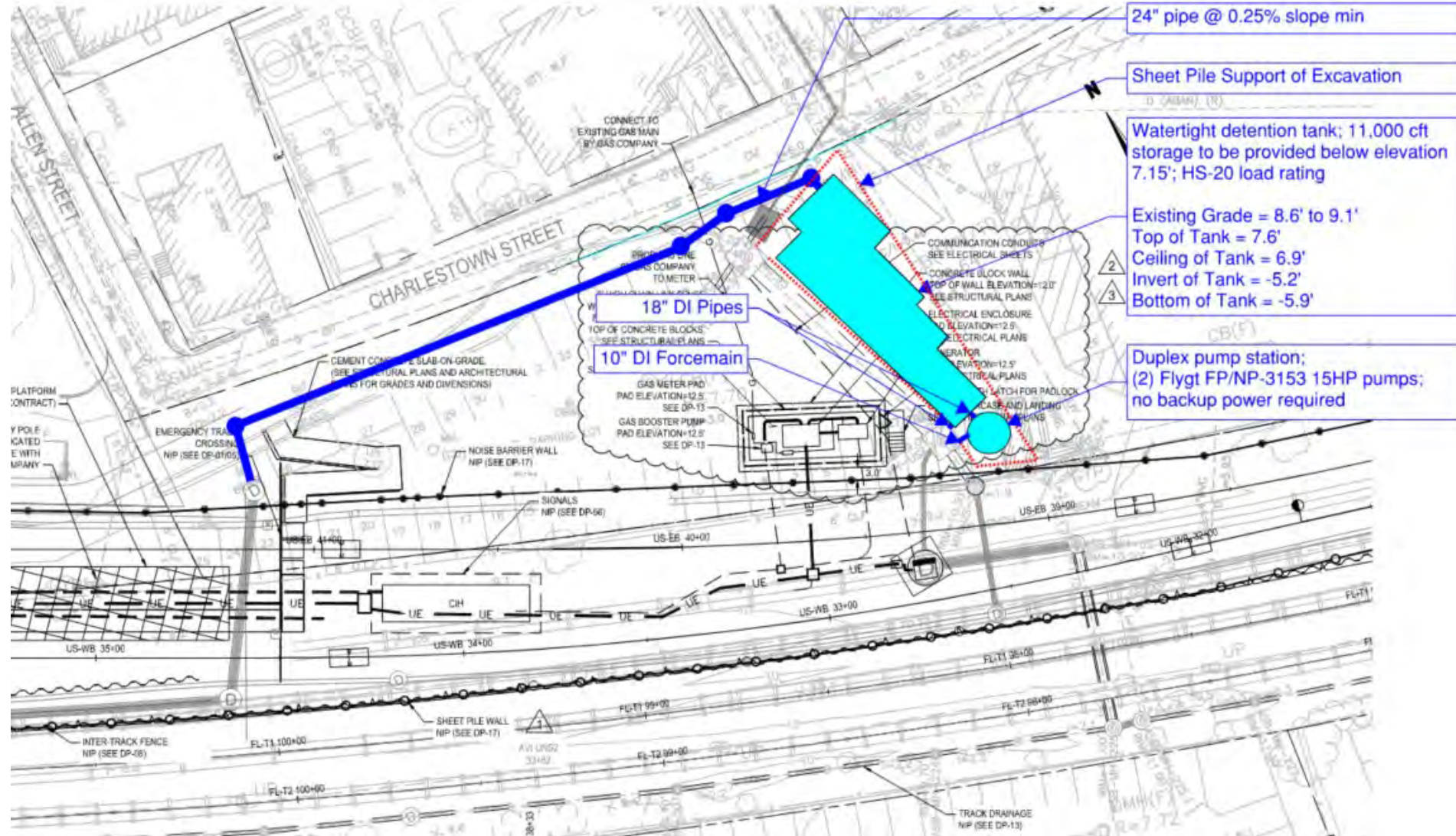
TAG NO.	NUMBER OF UNITS	NAME	LOCATION	TYPE	RATING POINT				MIN. SUCTION/ DISCHARGE SIZE (IN.)	PUMP RPM MAX.	SEAL TYPE	MOTOR DATA		
					CAPACITY (GPM)	HEAD (FEET)	MIN. EFF. %	SHUTOFF HEAD (FT.)				HP	RPM (MAX.)	ENCL. TYPE
RPS-1 THRU 3	3	HIGH FLOW PUMPS	RED BRIDGE PUMP STATION	SOLIDS HANDLING SUBMERSIBLE	10,000	30	73	58	16/16	710	TANDEM MECH.	100	720	X-PROOF SUBMERSIBLE
RPS-4 & 5	2	LOW FLOW PUMPS	RED BRIDGE PUMP STATION	SOLIDS HANDLING SUBMERSIBLE	1,700	35	69	48	8/8	1170	TANDEM MECH.	20	1200	X-PROOF SUBMERSIBLE
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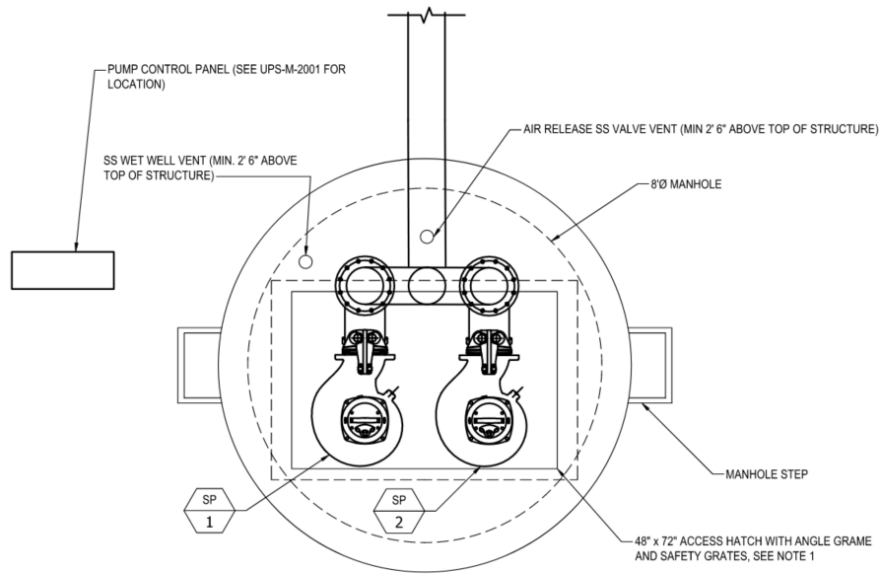
# Red Bridge Pump Station: Section (2)



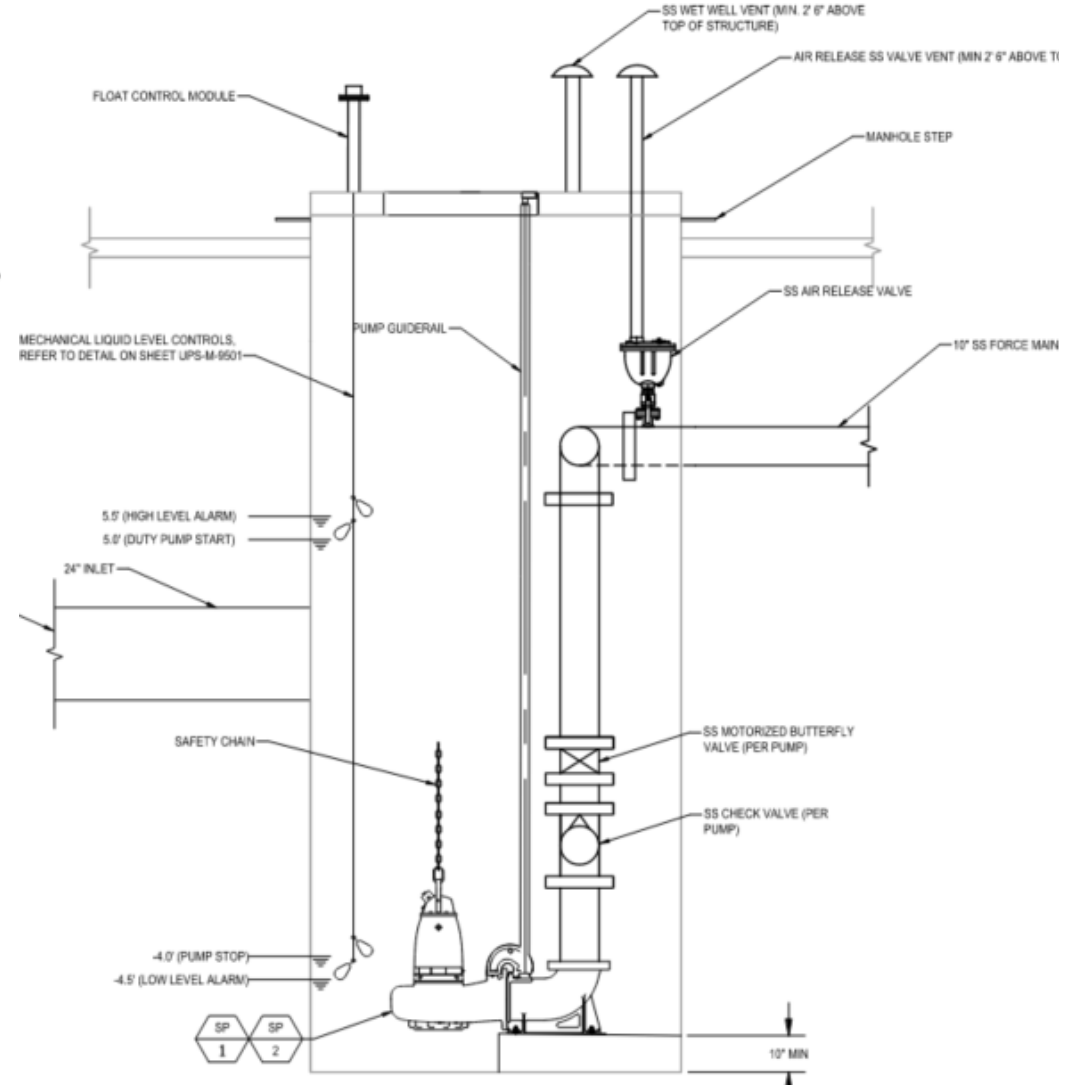
# Union Square Station Flood Mitigation System: Future Detention Basin Project



# Union Pump Station: Plan and Section



**1 PUMP STATION PLAN VIEW**  
SCALE: 1/2" = 1'-0" 1/2" = 1'-0" 0 1' 2' 4'



ITEM	DESCRIPTION	BASIS OF DESIGN											REMARKS
		MANUFACTURER	MODEL	GPM	FT HEAD	QTY	ELECTRICAL						
							HP	AMP	RPM	V	PH	HZ	
<div>SP 1</div>	DUPLEX SUBMERSIBLE PUMPS	FLYGT	FP/INP-3153	1700	18	1	15	22	1155	480	3	60	PUMPS TO BE EXPLOSION-PROOF
<div>SP 2</div>	DUPLEX SUBMERSIBLE PUMPS	FLYGT	FP/INP-3153	1700	18	1	15	22	1155	480	3	60	





## US2 Interim Condition & Public Outreach

- Terry McCarthy, GLX Deputy Program Manager, Stakeholder Engagement



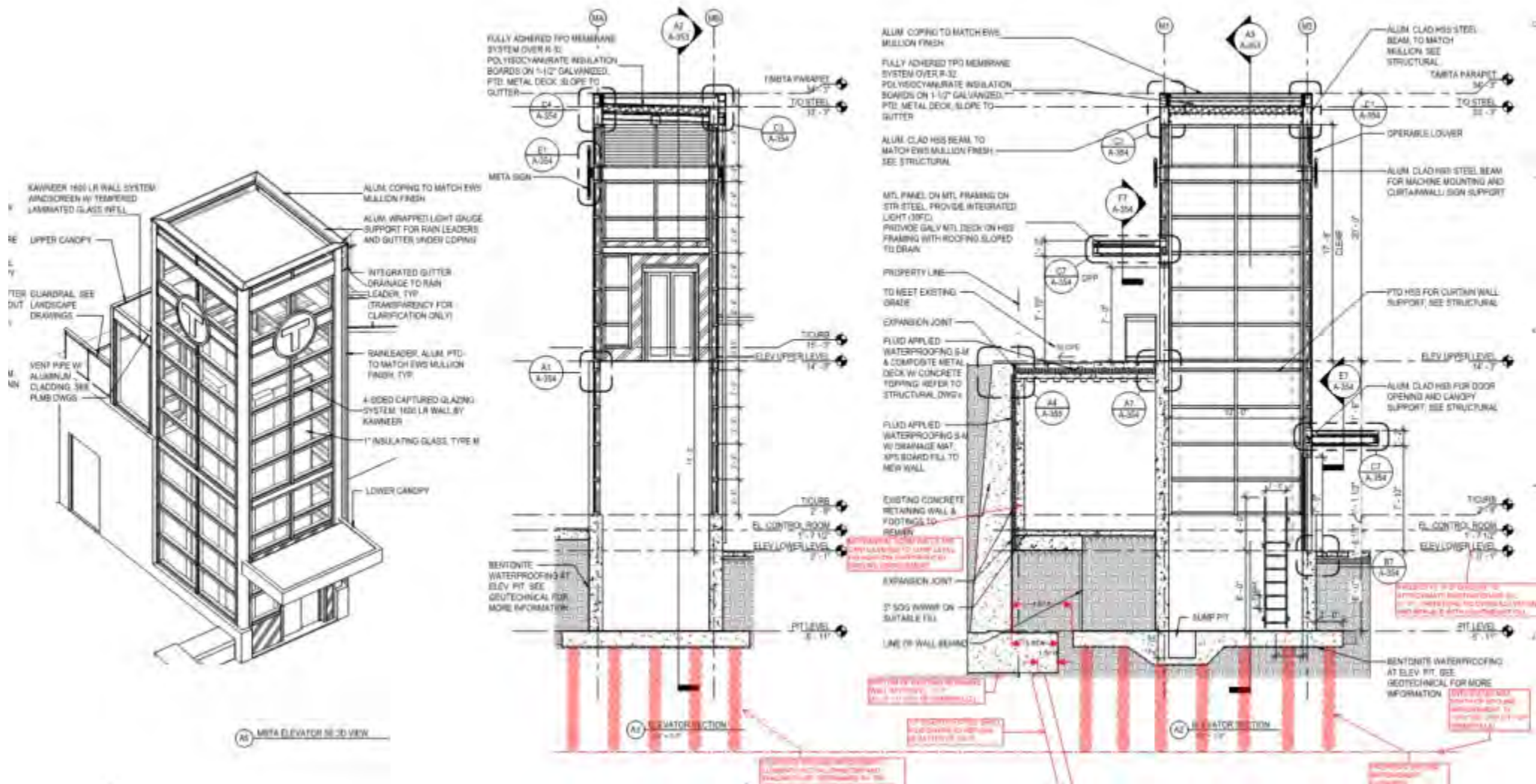
# UNION SQUARE REVITALIZATION D2 Project: Interim MBTA Station Access PROPOSAL #4

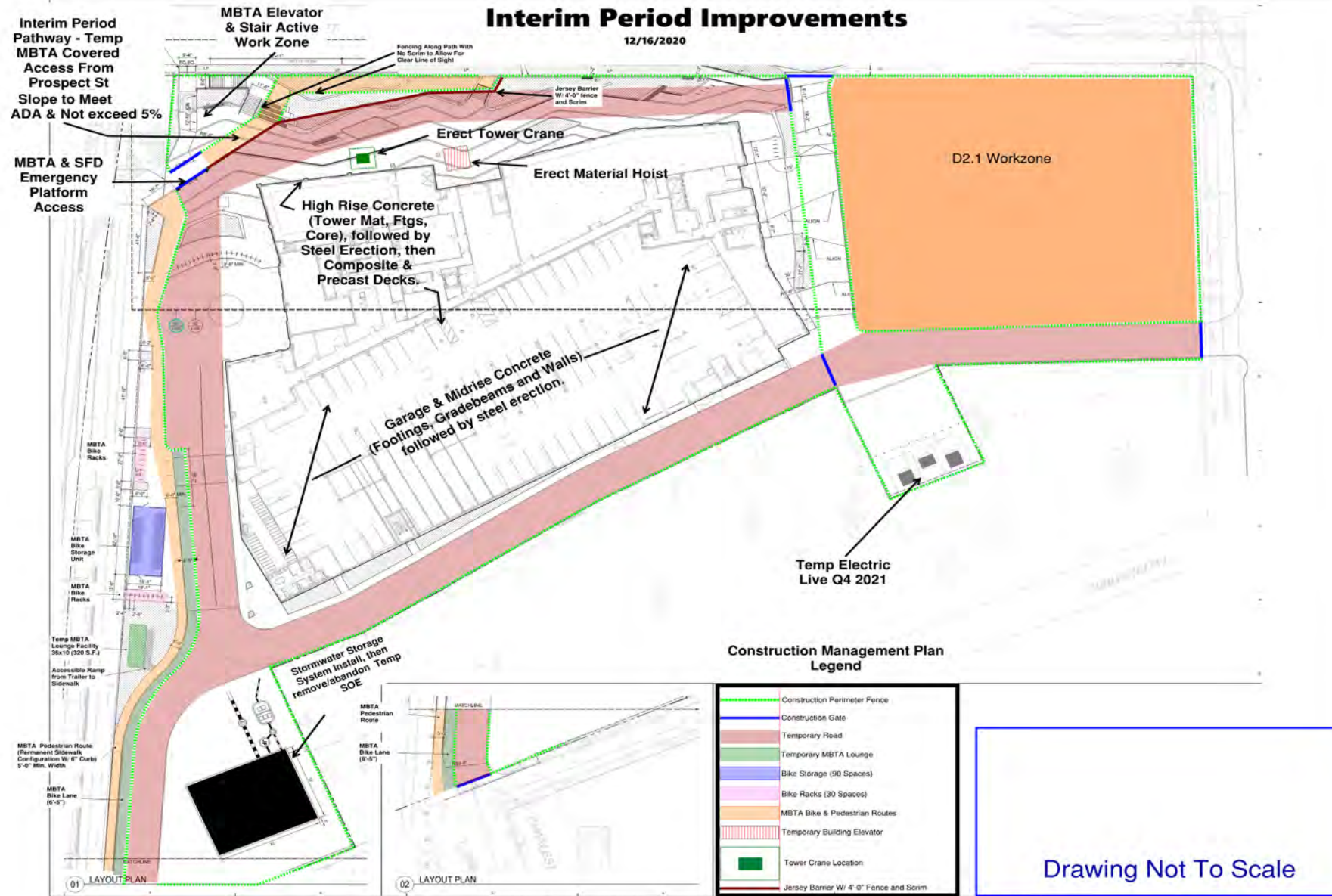
October 1, 2020

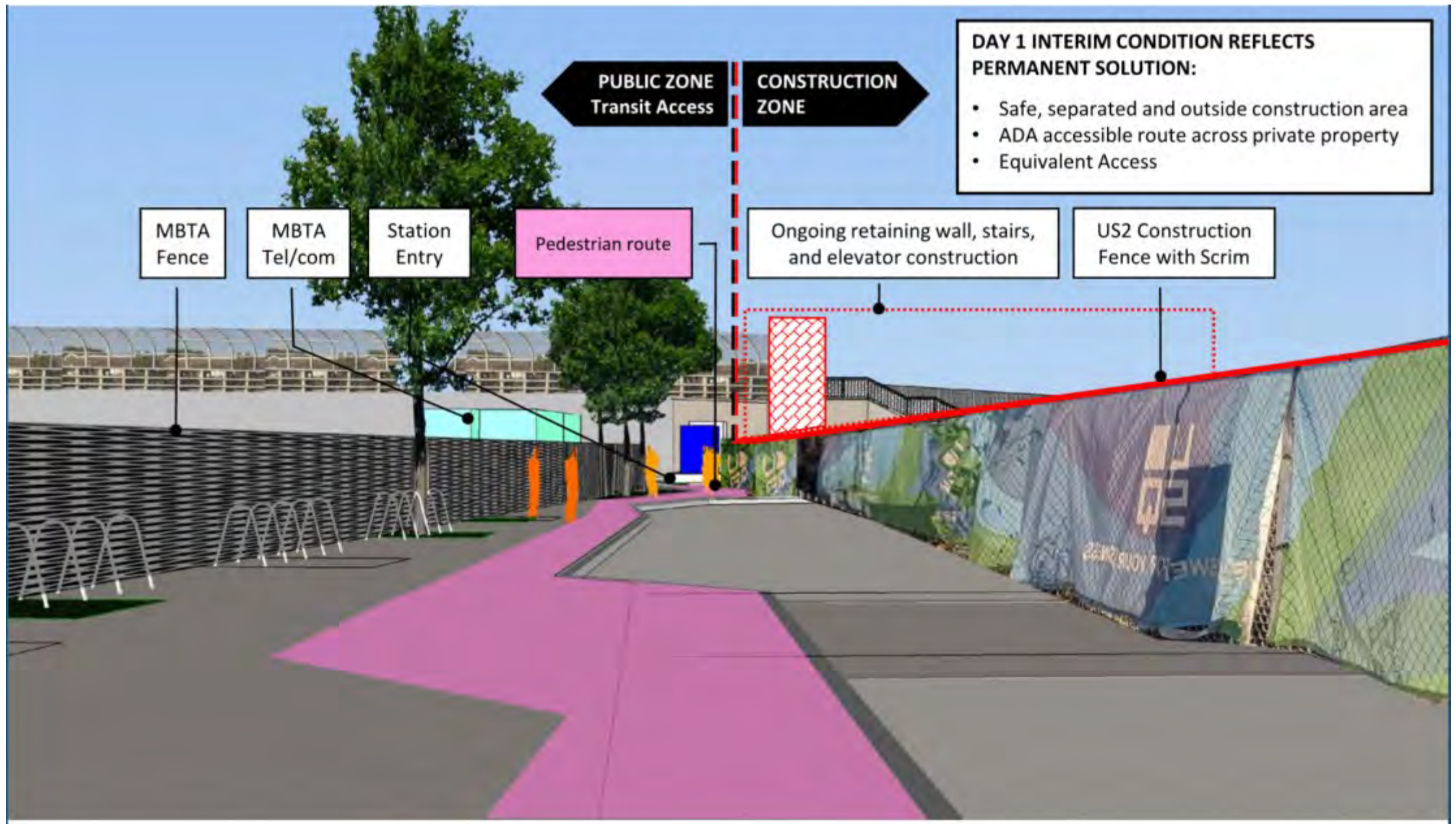


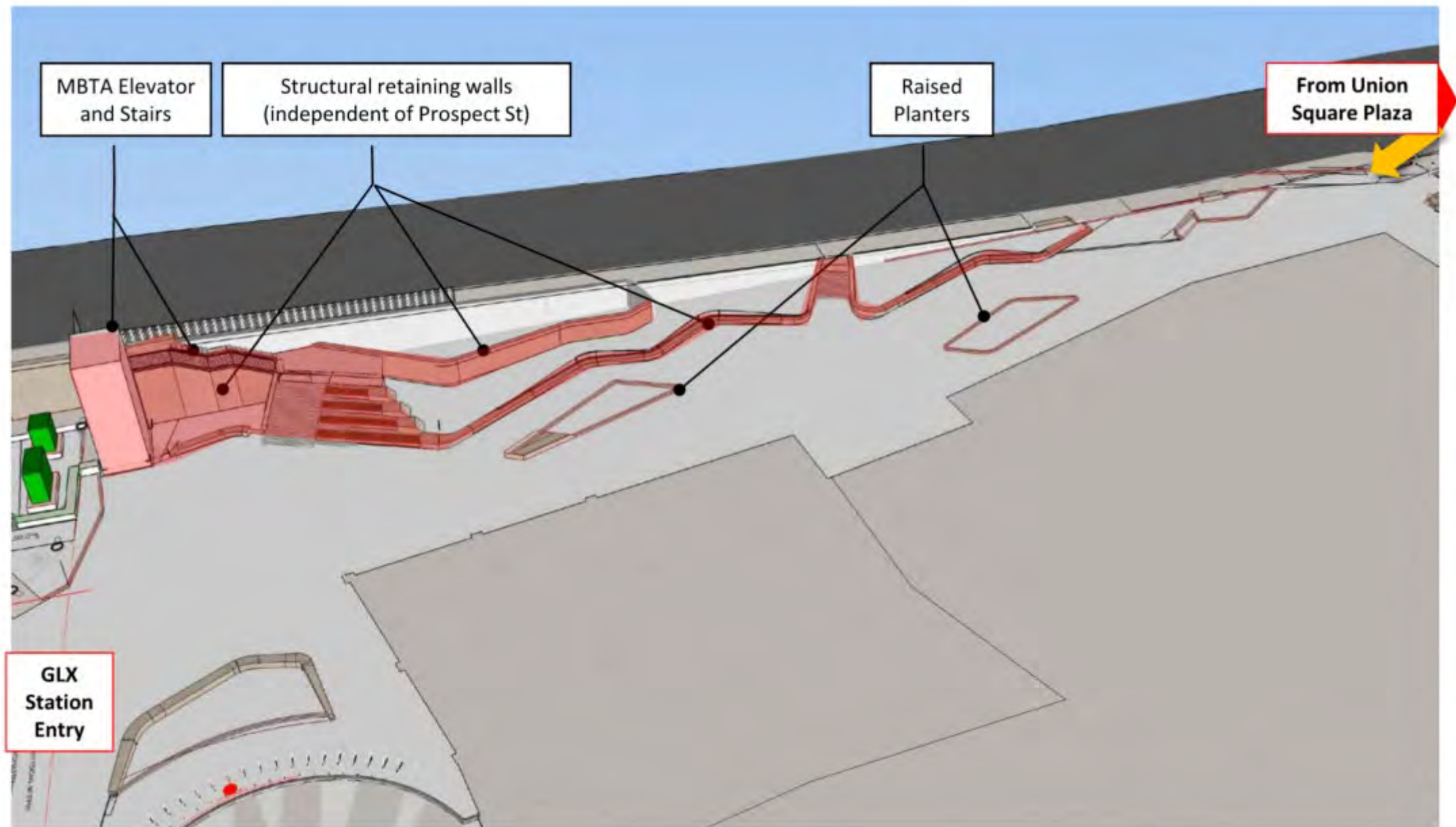
UNION SQUARE REVITALIZATION













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# GLXC Construction Highlights

➤ Jeff Wagner, GLX Public Involvement Manager



# Construction Highlights – Vehicle Maintenance Facility



- Vehicle Maintenance Facility is in the process of being handed over to MBTA Operations
- Major achievement for project!



# Construction Highlights – Arrival of Light Rail Vehicles



- Three different types Green Line vehicles arrived at the VMF last week.
- These oversized loads were transported by truck and involved a significant amount of coordination



# Construction Highlights — Arrival of Light Rail Vehicles can't



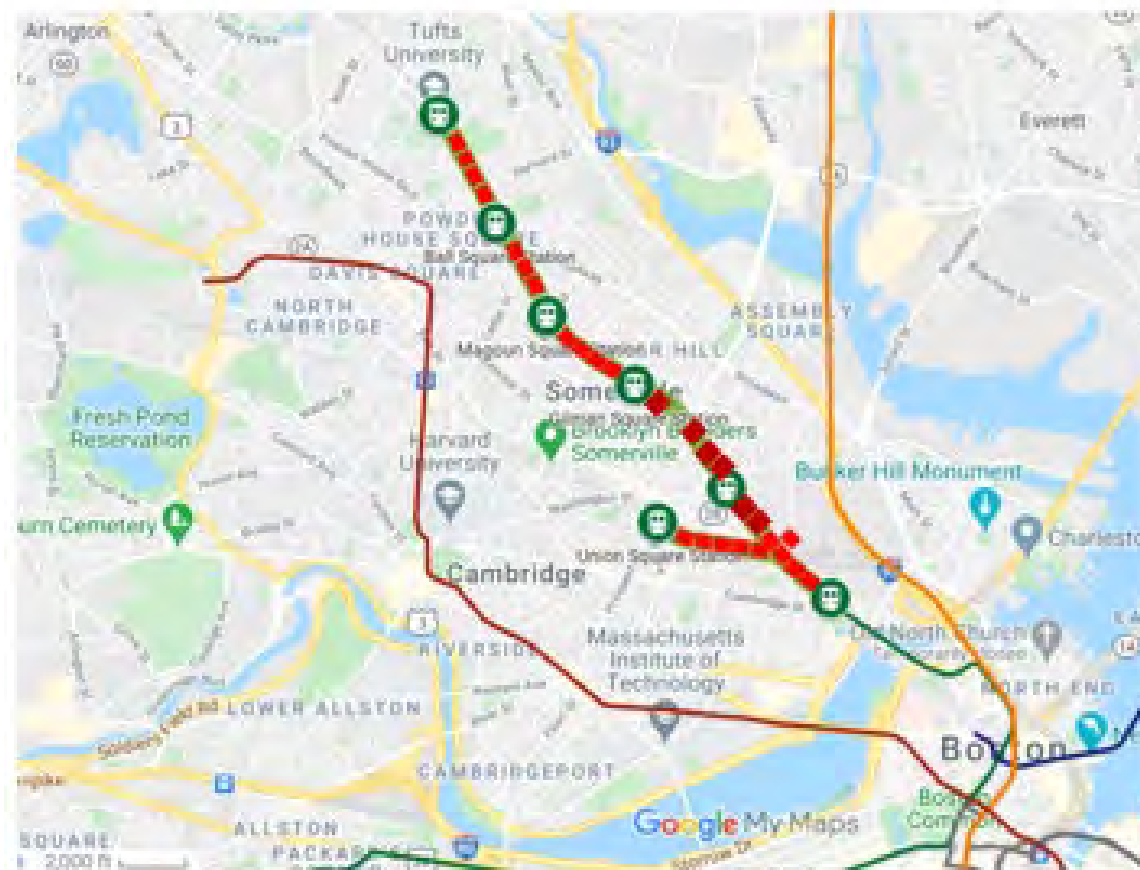
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# Construction Highlights – Light Rail Track Placement

 = Track placed

- Nearly all Green Line Track is in place
- Only gaps include single lines at Magoun Square & Ball Square Stations and both tracks at Medford/Tufts Station



# Construction Highlights – Light Rail Track Placement con't



- Track placement between Medford St and East Somerville Station has been active this summer



# Construction Highlights – Track Placement con't 2



- Two lines of track and a noise wall now stand in the path of our Community Working Group tour route from October 2020



# Construction Highlights – Systems Installation



- The last of 220 Overhead Contact System poles on the Union Square Branch was set on July 22
- Crews now focused on finalizing catenary wire pull and final height adjustments throughout Branch 1



# Construction Highlights – Union Square Station



- Work is active at the Union Square platform & Central Instrument House



# Construction Highlights – Lechmere Station



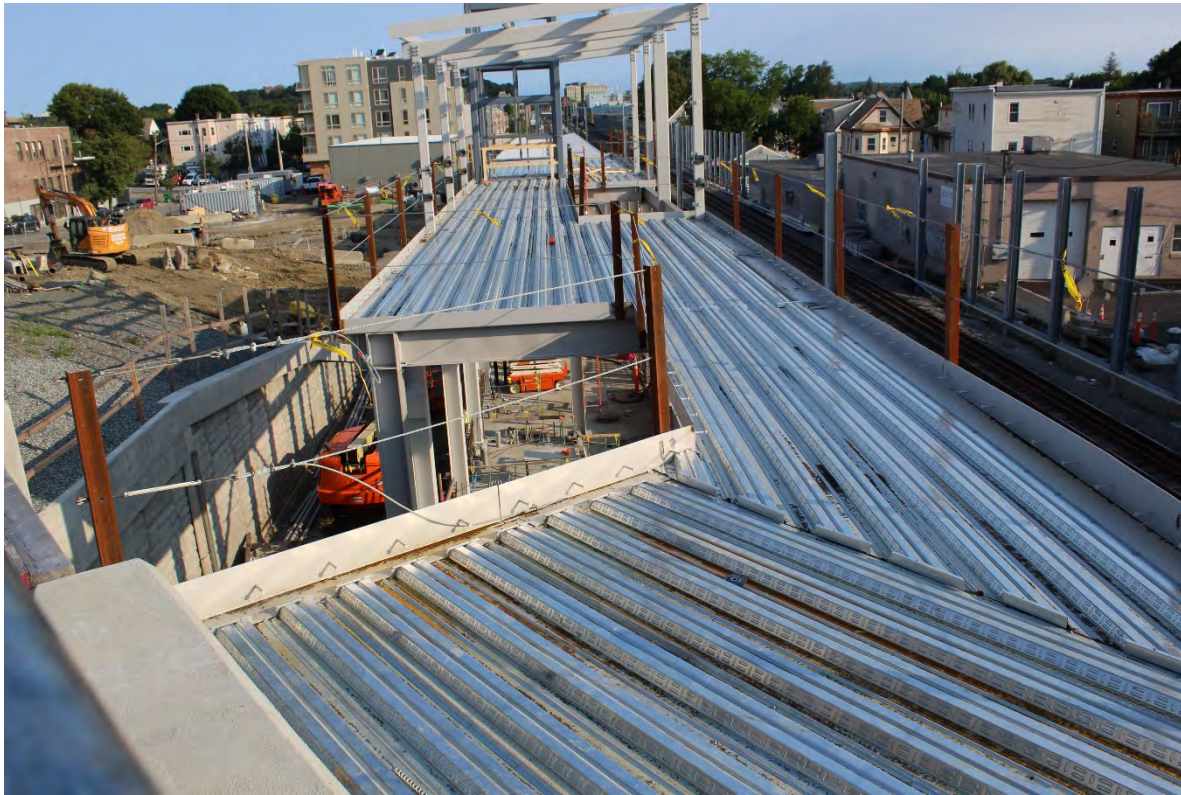
- Electrical & systems work continues at viaduct level
- At street level structural steel painting, substructure finishing/cleaning & downspout installation underway



# Construction Highlights – Ball Square Station



- The pedestrian access from Broadway Bridge to the station is taking shape
- Noise wall panel placement has started at Newbern Ave.



# Outreach – Hotline Responses

- 1,945 inquiries thru Hotline, e-mail or direct contact with outreach staff project to date. 28 contacts received in July.
- 1,835 actions closed out to date





# Q & A

